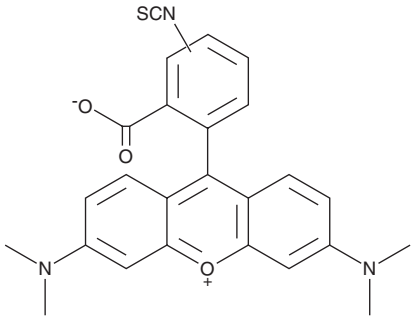
PRODUCT INFORMATION

Tetramethylrhodamine isothiocyanate (mixed isomers)

Item No. 19593

CAS Registry No.:	95197-95-8
Formal Name:	9-(2-carboxyisothiocyanatophenyl)-3,6-*bis*(dimethylamino)-xanthylium, inner salt
Synonyms:	5(6)-Tetramethylrhodamine isothiocyanate, 5(6)-TRITC, TRITC
MF:	$C_{25}H_{21}N_3O_3S$
FW:	443.5
Purity:	≥95%
UV/Vis.:	λ_{max}: 215, 256, 283, 356, 545 nm
Ex./Em. Max:	552/575 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Tetramethylrhodamine isothiocyanate (TRITC) (mixed isomers) is supplied as a crystalline solid. A stock solution may be made by dissolving the TRITC (mixed isomers) in the solvent of choice, which should be purged with an inert gas. TRITC (mixed isomers) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of TRITC (mixed isomers) in these solvents is approximately 5 mg/ml.

TRITC (mixed isomers) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, TRITC (mixed isomers) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. TRITC (mixed isomers) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

TRITC is an amine-reactive derivative of rhodamine that is used as a fluorescent label for antibodies and other probes (ex/em max = 552/575 nm).[1] It consists of a base tetramethylrhodamine molecule functionalized with an isothiocyanate reactive group at one of two hydrogen atoms on the bottom ring of the structure. TRITC is reactive towards primary amine groups on proteins, peptides, and other biomolecules.

Reference

1. Li, B., Oestreich, S., and de Lange, T. Identification of human Rap1: Implications for telomere evolution. *Cell* **101(5)**, 471-83 (2000).

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